In the Specification:

Amend the following paragraphs as follows:

a1

[0018] Figure 1 is a block diagram of a system which includes parallel power amplifiers 16 which receive coherent RF signals, generated by signal source 12 and divided in equal amplitude and phase relation by RF divider 14. The output signals from RF amplifiers 16A, 16B, 16C and 16D are provided to combiner 18 and thereafter to antenna 20.

[0019] Those familiar with RF circuits will recognize that in a conventional system of the type shown in Figure 1, proper operation requires that all amplifiers 16A-D be operating to normal specification, with equal amplifier power and phase. In the event one of the amplifiers, such as amplifier 16C, should fail, the result will be a possible impedance mismatch at divider 14 and a power combining impedance mismatch at combiner 18. The resulting signal loss will exceed the 1/4 power loss normally associated with the failed amplifier, because of the impedance mismatch at the combiner. In the event that one of amplifiers 16 fails, or in the event that it is desired to disconnect one of the amplifiers 16, it is desirable to reconfigure power divider 14 and power combiner 18 to isolate the failed amplifier 16C from the other elements of the system.

[0020] Figure 2 is a schematic diagram of a conventional single-pole, N-throw (N=4) RE switch 22 having a signal input port 23 and switch selectable output portions 25A, 25B, 25C and 25D. In normal applications the switch reeds 24A, 24B, 24D and 24D are moved to connect only one of the output ports 25A-D to the input port 23. Because there is only a single connection at any time (except possibly during the switching process), assuming the load on the connected

output port 25A-D is equal to the characteristic impedance of the transmission line and source 23, impedance match is achieved.

a1 contd.

[0021] If more than one of the output ports 25A-D of switch 22 were connected, the input impedance at input port 23 will be a function of the impedance of all connected output ports. Accordingly, assuming that the output ports are SO ohm loads, and two output ports are connected, the impedance at input port 23 will be 25 ohms. If all switch reeds 24A-D are moved to the connected position, and 50 ohm loads are provided at each output port, the impedance of input port 23 will be 12-1/2 ohms. Accordingly, activation of more than one switch reed 24A-D will normally cause a significant change in the input impedance, normally causing a mismatch and power loss by reflection.

a2

[0023] The inner conductor portions shown in Figure 3 include a common input port 33, which is connected to a 50 ohm slab-line inner conductor 36 to be mounted within housing 42, as shown in Figures 4 and 5. Coaxial output ports 35A, 35B, 35C and 35D connect inner conductor 36 selectively to one or more of output ports 35A-D. According to the number of output ports connected, an input signal provided to input port 33 is provided as an output signal to one or more output ports 35. Reeds 34A, 34B, 34C and 34D are mechanically moved between open or "off' positions and closed or "on" positions by electromagnets in a conventional manner as will be further explained.

[0024] Those skilled in the art will recognize that when a single output port 35A-D is connected to input port 33 by one of switching reeds 34A-D, the load presented to input port 33 is a match, i.e., 50 ohm, impedance load. As additional output ports 35 are connected by

switching of their respective switch reeds 34A-D, provisions must be made for impedance matching the input port 33 to the changed load condition.

a2 contd.

[0025] To provide for impedance matching, switchable matching stub reeds 37, 38 and 39 are respectively located at selected distances D1, D2 and D3 along slab transmission line 36 from the switching connection point. Each impedance matching reed 37, 38, and 39 has a respective impedance matching length L1, L2 and L3, which is selected to provide reactive impedance matching for the power divider when 2, 3 or 4 of output ports 35A-D are connected to transmission line 36 by their respective switching reeds 34.

a3

[0031] Reference is made to the perspective view of Figure 6 and the cross-sectional view of Figure 7, which illustrate a typical configuration for operation of reeds 34 of the preferred embodiments of Figures 3 through 5. As shown in Figure 6 and Figure 7, RF housing 42 is provided with a cover plate 46 to provide an RF assembly 48. A solenoid mounting plate 50 is secured to cover plate 46 and provided with solenoids 52 having armatures 68, which act on pin 70 carrying reeds 34 which engage terminal 35 and center conductor 36 for activating the switch. The impedance matching reeds are similarly driven by solenoids. A circuit board 60 is conveniently mounted above solenoids 52, and includes integrated circuits 66 for providing driving currents in accordance with supplied logic signals representing the desired state of the power divider, provided to terminal 62, and using DC power supplied to terminals 64.

a4

[0033] Those skilled in the art will recognize that the switchable power divider of the present invention can be advantageously used in connection with a multiple solid state amplifier device as shown in Figure 8. In connection with such amplifiers it is possible to provide a